IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

ASUS TECHNOLOGY LICENSING INC. AND CELERITY IP, LLC,

Plaintiffs,

Civil Action No. 2:23-cv-409

v.

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC., AND SAMSUNG RESEARCH AMERICA,

Defendants.

JURY TRIAL DEMANDED

ORIGINAL COMPLAINT

Plaintiffs ASUS Technology Licensing Inc. ("ATL") and Celerity IP, LLC ("Celerity") (collectively, "Plaintiffs") hereby submit this Complaint for patent infringement against Defendants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Research America (collectively, "Samsung" or "Defendants") and state as follows:

NATURE OF THE ACTION

1. Samsung has infringed and continues to infringe, contribute to the infringement of, and/or actively induce others to infringe, U.S. Patent No. 10,187,878 ("the '878 Patent" or "Patent-In-Suit") (attached hereto as Exhibit A). Plaintiffs accordingly file this Complaint seeking a judgment of and relief for patent infringement by Samsung.

THE PARTIES

2. Plaintiff ASUS Technology Licensing Inc. ("ATL") is Taiwanese corporation, with its principal place of business located at No. 115, Li-De Rd., Beitou District, Taipei, Taiwan, R.O.C. ATL was established in April 2022 by ASUSTEK Computer Inc. ("ASUSTEK") to

continue ASUSTeK's long history of development in and contributions to the field of wireless communication technologies since 2000. ATL's mission includes active development of 3G, 4G, and 5G wireless communication technologies, as well as management of an innovative patent portfolio concerning such technologies which has brought abounding contributions to the industry through standards contributions and licensing. ATL is the owner by assignment of patents, originally owned by ASUSTeK, that are critically important to 3G, 4G, and 5G technologies. Regarding the present litigation, ATL is the owner by assignment of the Patent-In-Suit.

- 3. Plaintiff Celerity IP, LLC ("Celerity") is a limited liability company organized and existing under the laws of Texas, with its principal place of business located at 7160 Dallas Parkway, Suite 235, Plano, Texas 75024. Celerity has partnered with ATL to assist with the licensing and enforcement of ATL's patents, including in the present litigation. Celerity is the exclusive licensee of the Patent-In-Suit. While Celerity is the exclusive licensee of the Patent-In-Suit, patent owner ATL has agreed to join as a Plaintiff in the present litigation, including to ensure compliance with 35 U.S.C. § 281. *See Lone Star Silicon Innovations LLC v. Nanya Technology Corp.*, 925 F.3d 1225 (Fed. Cir. 2019).
- 4. Defendant Samsung Electronics Co., Ltd. ("SEC") is a corporation organized and existing under the laws of the Republic of Korea, with its principal place of business located at 129 Samsung-ro, Maetan-3dong, Yeongtong-gu Suwon-si, Gyeonggi-do 16677, Suwon-Shi, Korea.
- 5. Defendant Samsung Electronics America, Inc. ("SEA") is a corporation organized and existing under the laws of New York, with its principal place of business located at 85 Challenger Road, Ridgefield Park, New Jersey 07660. Since at least June 10, 1996, SEA has been registered to do business in Texas under Texas SOS file number 0011028006. SEA may be served through its registered agent, CT Corporation System, located at 1999 Bryan St., Ste. 900, Dallas, Texas 75201. On information and belief, SEA is a direct or indirect subsidiary of SEC.

11254137 - 2 -

6. Defendant Samsung Research America ("SRA") is a corporation organized and existing under the laws of California, with its principal place of business located at 645 Clyde Avenue, Mountain View, California 94043. Since at least January 26, 2012, SRA has been registered to do business in Texas under Texas SOS file number 0801541089. SRA may be served through its registered agent, CT Corporation System, located at 1999 Bryan St., Ste. 900, Dallas, Texas 75201. On information and belief, SRA is a direct or indirect subsidiary of SEC.

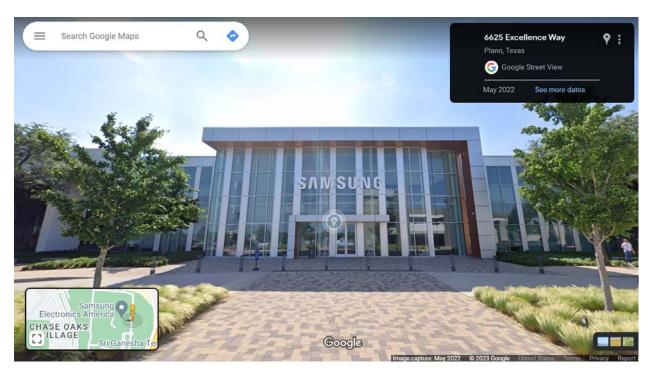
JURISDICTION AND VENUE

- 7. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1331 and 1338, as this action arises under the patent laws of the United States (35 U.S.C. §§ 1 *et seq.*).
- 8. Each Defendant is subject to this Court's personal jurisdiction consistent with the principles of due process and/or the Texas Long Arm Statute.
- 9. Personal jurisdiction exists generally over the Defendants because each Defendant has sufficient minimum contacts and/or has engaged in continuous and systematic activities in the forum as a result of business conducted within Texas, including in the Eastern District of Texas. Personal jurisdiction also exists over each Defendant because each, directly or through subsidiaries, makes, uses, sells, offers for sale, imports, advertises, makes available, and/or markets products and/or services within Texas, including in the Eastern District of Texas, that infringe one or more claims of the Patent-In-Suit. Further, on information and belief, Defendants have placed or contributed to placing infringing products and/or services into the stream of commerce knowing or understanding that such products and/or services would be sold and used in the United States, including in this District. Defendants SEA and SRA are each registered to do business in Texas and maintain an agent authorized to receive service of process within Texas, and Defendant SEC is the direct or indirect parent corporation of Defendants SEA and SRA.
- 10. Venue is proper in the Eastern District of Texas pursuant to 28 U.S.C. §§ 1391(b)-(c) and/or 1400(b), including but not limited to because Samsung has committed acts of

11254137 - 3 -

infringement in this District and has regular and established places of business in this District. By way of example and without limitation, Samsung makes, uses, sells, offers to sell, and/or imports products and/or services that are accused of infringing the Patent-In-Suit into and/or within this District and maintains a permanent and/or continuing presence within this District. Additionally, upon information and belief, Defendants SEA and SRA maintain places of business in this District, and Defendant SEC is a foreign company with no place of business in the United States apart from those of its subsidiaries (including SEA and SRA).

- 11. Plaintiffs maintain a place of business within the Eastern District of Texas. For example, Plaintiff Celerity is incorporated in Texas and has its principal place of business within this District located at 7160 Dallas Parkway, Suite 235, Plano, Texas 75024.
- 12. Defendants likewise maintain multiple places of business within this District. For example, Defendant SEA maintains its "Flagship North Texas Campus" in this District, which it opened in 2019 with a "216,000 square foot building" and "more than 1,000 regional employees." https://news.samsung.com/us/samsung-electronics-america-open-flagship-north-texas-campus/ (last visited Sept. 12, 2023). This facility is located at 6625 Excellence Way, Plano, Texas 75023:



11254137 - 4 -

https://www.google.com/maps/ (6625 Excellence Way, Plano, Texas) (last visited Sept. 12, 2023). Since opening SEA's North Texas Campus in 2019, Samsung has further expanded its Plano footprint multiple times, including, for example, with the addition of locations at 6625 Declaration Way, Plano, Texas 75023, and at 6105 Tennyson Parkway, Plano, Texas 75023. *See, e.g,* https://www.dallasnews.com/business/retail/2023/01/06/samsung-growing-in-north-texas-with-offices-in-plano-and-coppell-warehouse/ (last visited Sept. 12, 2023) ("In 2020, Samsung expanded the Plano office by another 75,000 square feet, according to planning documents filed with the state. Then in 2021, Samsung added another 60,000 square feet of offices in the Legacy Central building at 6625 Declaration Way. Now Samsung is taking 33,226 square feet of offices in another Plano building. The South Korea-based company has leased the third floor in The Tennyson office campus at 6105 Tennyson Parkway in Legacy business park.").

13. Moreover, for example, Defendant SRA maintains an office within the Eastern District of Texas, which is also located in the facility at 6625 Excellence Way, Plano, Texas 75023:

Our locations



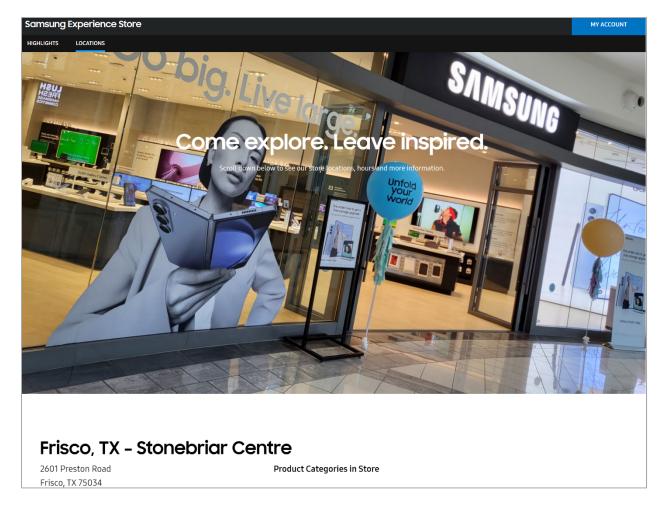
Plano, TX

6625 Excellence Way Plano, TX 75023 Get directions

11254137 - 5 -

https://sra.samsung.com/locations/ (last visited Sept. 12, 2023). SRA employees at this location work on research and development relating to the implementation of 5G technologies in Samsung products. See https://research.samsung.com/sra (last visited Sept. 12, 2023) ("Samsung Research America plays a critical role in developing next generation software, user experiences, and services for Samsung Electronics in key domains, such as ... 5G/6G communication networks").

14. Further, for example, Samsung also maintains a "Samsung Experience Store" within the Eastern District of Texas, located at 2601 Preston Rd. #1214, Frisco, Texas 75034:



https://www.samsung.com/us/samsung-experience-store/locations/ (last visited Sept. 12, 2023). At this facility, Samsung invites its customers "to shop our Galaxy of products, learn directly from experts and get Samsung-certified service and repairs." https://www.samsung.com/us/samsung-experience-store/ (last visited Sept. 12, 2023).

11254137 - 6 -

- 15. Samsung has solicited business in the Eastern District of Texas, has transacted business within this District, and has attempted to derive financial benefit from the residents of this District, including benefits directly related to Samsung's infringement of the Patent-In-Suit.
- 16. In other recent actions, Samsung has either admitted or not contested that the Eastern District of Texas is a proper venue for patent infringement actions against it. *See, e.g., 5G IP Holdings LLC v. Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Research America,* No. 4:21-cv-00622-SDJ, Dkt. 23 ¶ 19 (E.D. Tex. Nov. 15, 2021) ("Samsung does not challenge that venue is proper in this judicial district under 28 U.S.C. § 1391(b)-(c) and 14000(b) for purposes of this case"); *CogniPower LLC v. Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.,* No. 2:23-cv-00160-JRG, Dkt. 29 ¶¶ 12-13 (E.D. Tex. July 31, 2023) (Samsung not contesting that venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400(b)).
- 17. Defendants are properly joined under 35 U.S.C. § 299(a) because, on information and belief, Defendants commonly and/or jointly make, use, sell, offer to sell, and/or import the Samsung Accused Products such that at least one right to relief is asserted against Defendants jointly, severally, and in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, selling, offering to sell, and/or importing into the United States of the same Samsung Accused Products, and such that questions of fact common to all Defendants will arise in this action.

PATENT-IN-SUIT

- 18. U.S. Patent No. 10,187,878 ("the '878 Patent" or "Patent-In-Suit") was duly and legally issued on January 22, 2019, for an invention titled, "Method And Apparatus For Improving A Transmission Using A Configured Resource In A Wireless Communication System."
- 19. Plaintiffs own all rights to the Patent-In-Suit that are necessary to bring this action, including all rights to sue for infringement and to recover past and future damages. Celerity is the

11254137 - 7 -

exclusive licensee of the Patent-In-Suit, and ATL is the owner by assignment of the Patent-In-Suit.

Patent owner ATL has voluntarily joined as a Plaintiff in this litigation.

- 20. Samsung is not currently licensed to practice the Patent-In-Suit.
- 21. The Patent-In-Suit is valid and enforceable.
- 22. Samsung has had knowledge of the Patent-In-Suit at least since January 19, 2022, when Plaintiffs provided Samsung notice that it is infringing the Patent-In-Suit.

SAMSUNG ACCUSED PRODUCTS

23. On information and belief, Samsung makes, uses, sells, offers for sale, and/or imports, in/into the United States, products that implement and practice 4G wireless technologies (the "Samsung 4G Accused Products"). The Samsung 4G Accused Products include, but are not limited to: Galaxy Z Flip series including Galaxy Z Flip 5, Galaxy Z Flip 4, Galaxy Z Flip 3, Galaxy Z Flip; Galaxy Z Fold series including Galaxy Z Fold5, Galaxy Z Fold4, Galaxy ZFold3, Galaxy Z Fold 2, Galaxy Z Fold; Galaxy A series including Galaxy A80, Galaxy A72, Galaxy A71, Galaxy A70s, Galaxy A70, Galaxy A60, Galaxy A52, Galaxy A51, Galaxy A50, Galaxy A50s, Galaxy A42, Galaxy A41, Galaxy A40, Galaxy A32, Galaxy A31, Galaxy A30, Galaxy A30s, Galaxy A23, Galaxy A22, Galaxy A21, Galaxy A20s, Galaxy A20e, Galaxy A14, Galaxy A13, Galaxy A12, Galaxy A11, Galaxy A10e, Galaxy A10s, Galaxy A10, Galaxy A9, Galaxy A8Star, Galaxy A8s, GalaxyA8+, Galaxy A8, Galaxy A7, Galaxy A6, GalaxyA6+, GalaxyA6s, Galaxy A5, Galaxy A3, Galaxy A2core, Galaxy A04s, Galaxy A04, Galaxy A03s, Galaxy A03, Galaxy A02s, Galaxy A02; Galaxy A01; Galaxy S Series including Galaxy S22+, Galaxy S22 Ultra, Galaxy S22, Galaxy S21+, Galaxy S21, Galaxy S21 Ultra, Galaxy S21 FE, Galaxy S20+, Galaxy S20 FE, Galaxy S10+, Galaxy S10E, Galaxy S10, Galaxy S9+, Galaxy S9, Galaxy S8 Active, Galaxy S8; Galaxy M Series including Galaxy M62, Galaxy M51, Galaxy M40, Galaxy M32, Galaxy M31s, Galaxy M31, Galaxy M30s, Galaxy M30, Galaxy M23, Galaxy M22, Galaxy M21s, Galaxy M21, Galaxy M20, Galaxy M13, Galaxy M12, Galaxy M11, Galaxy M10s, Galaxy M10, Galaxy M04,

11254137 - 8 -

Galaxy M02s, Galaxy M02, Galaxy M01s, Galaxy M01; Galaxy J Series including Galaxy J8, Galaxy J7, Galaxy J6, Galaxy J5, Galaxy J4, Galaxy J3, Galaxy J2; Galaxy Note series including Galaxy Note20, Galaxy Note 10+, Galaxy Note 10, Galaxy Note9, Galaxy Note 8, Galaxy Note FE; Galaxy Tab series including Galaxy Tab S9, Galaxy Tab S9+, Galaxy Tab S9 Ultra, Galaxy Tab S8+, Galaxy TabS8 Ultra, Galaxy Tab S8, Galaxy TabS7+, Galaxy TabS7, Galaxy Tab S6, Galaxy TabS5e, Galaxy Tab S4, Galaxy TabS3, Galaxy Tab A 8.0, Galaxy Tab A 10.5, Galaxy Tab A 10.1, Galaxy Tab A8.4, Galaxy Tab A7, Galaxy Tab A7 Lite, Galaxy TabA8; Galaxy Watch series including Galaxy Watch 6, Galaxy Watch 5, Galaxy Watch 4, Galaxy Watch 3, Galaxy Watch Active 2, Galaxy Watch Active, Galaxy Watch; and Galaxy XCover series including Galaxy XCover 6 Pro, Galaxy XCover5, Galaxy XCover4, Galaxy XCover Pro.

On information and belief, Samsung makes, uses, sells, offers for sale, and/or 24. imports, in/into the United States, products that implement and practice 5G wireless technologies (the "Samsung 5G Accused Products"). The Samsung 5G Accused Products include, but are not limited to: Galaxy Z Fold series including Galaxy Z Fold5, Galaxy Z Fold4, Galaxy Z Fold2 5G, Galaxy Z Fold 5G; Galaxy Z Flip series including Galaxy Z Flip5, Galaxy Z Flip4, Galaxy Z Flip 3 5G, Galaxy Z Flip 5G; Galaxy S series including Galaxy S23 Ultra, Galaxy S23+, Galaxy S22 Ultra, GalaxyS22+, GalaxyS22, GalaxyS21 Ultra 5G, GalaxyS21+5G, GalaxyS21, GalaxyS20 FE 5G, Galaxy S20 FE 5G UW, Galaxy S20 Ultra 5G, Galaxy S20+ 5G, Galaxy S20 5G, Galaxy S10 5G; Galaxy Note series including Galaxy Note20 Ultra 5G, Galaxy Note20 5G, Galaxy Note 10+ 5G; Galaxy A series including Galaxy A90 5G, Galaxy A73 5G, A71 5G, Galaxy A71 5G UW, Galaxy A54 5G, Galaxy A53 5G, Galaxy A52s 5G, Galaxy A52 5G, Galaxy A51 5G, Galaxy A51 5G UW, Galaxy A42 5G, Galaxy A34 5G, Galaxy A33 5G, Galaxy A32 5G, Galaxy A24 5G, Galaxy A23 5G, Galaxy A22 5G, Galaxy A14 5G, Galaxy A13 5G; Galaxy Tab series including Galaxy Tab S9+, Galaxy Tab S8+ 5G, Galaxy Tab S8, Galaxy TabS8 Ultra, Galaxy Tab S7 5G, Galaxy Tab S7+ 5G, Galaxy Tab S7 FE 5G, Galaxy Tab 6 5G; Galaxy M Series including Galaxy

11254137 - 9 -

M54 5G, Galaxy M53 5G, Galaxy M52 5G, Galaxy M42 5G, Galaxy M34 5G, Galaxy M33 5G, Galaxy M32 5G, Galaxy M23 5G, Galaxy M13 5G; and Galaxy XCover series including Galaxy XCover 6 Pro. On information and belief, as of the filing of this Complaint, all Samsung 5G Accused Products are also Samsung 4G Accused Products, as Samsung products with 5G capabilities also have 4G capabilities (including, for example, to use 4G networks in locations where there may be inadequate 5G network coverage).

25. As referenced in this Complaint, all of the Samsung 4G Accused Products and Samsung 5G Accused Products are referred to, collectively, as the "Samsung Accused Products."

PLAINTIFFS' COMPLIANCE WITH THE ETSI IPR POLICY AND DEFENDANTS' FAILURE TO COMPLY

- 26. The European Telecommunications Standards Institute ("ETSI") is an independent, non-profit standard setting organization ("SSO") that produces globally-accepted standards in the telecommunications industry. In addition to its own activities, ETSI is also one of several SSOs that are organization partners of the Third Generation Partnership Project ("3GPP"), which maintains and develops globally applicable technical specifications and standards, including for 4G wireless technologies (the "4G Standard") and 5G wireless technologies (the "5G Standard"). ETSI and its members have developed global standards that ensure worldwide interoperability between wireless networks, network operators, and devices.
- 27. ETSI has developed and promulgated an ETSI IPR Policy, which is intended to strike a balance between the need for open standards on the one hand, and the rights of IPR owners on the other hand. Clause 15.6 of the ETSI IPR Policy defines the term "ESSENTIAL" to mean that "it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR." ETSI IPR Policy § 15.6 (Nov. 30, 2022).

11254137 - 10 -

28. In an abundance of caution and to ensure their compliance with the ETSI IPR Policy, the Plaintiffs informed Samsung that they were prepared to grant Samsung an irrevocable license to the Plaintiffs' patents that relate to 4G and/or 5G wireless technologies, including to the Patent-In-Suit, on license terms that are Fair, Reasonable, and Non-Discriminatory ("FRAND"). The ETSI IPR Policy entitles a FRAND license to implementers that "MANUFACTURE ..., sell, lease, or otherwise dispose of, ... repair, use, or operate EQUIPMENT," and/or "use METHODS":

6 Availability of Licences

- 6.1 When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR to at least the following extent:
 - MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;
 - sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
 - repair, use, or operate EQUIPMENT; and
 - use METHODS.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate.

ETSI IPR Policy § 6.1 (Nov. 30, 2022).

- 29. Not later than January 19, 2022, the Plaintiffs sent to Samsung correspondence initiating the Plaintiffs' good faith efforts to license their patents to Samsung on FRAND terms.
- 30. Following the Plaintiffs' January 19, 2022 notice to Samsung, including for more than 18 months thereafter, the Plaintiffs' representatives routinely corresponded with Samsung representatives. During such correspondence, the Plaintiffs' representatives provided, in good faith, materials concerning the Plaintiffs' patents and technical details evidencing Samsung's use of the Plaintiffs' patents, including the Patent-In-Suit.
- 31. The Plaintiffs' representatives have provided Samsung multiple opportunities to license the Plaintiffs' patents on FRAND terms.

- 11 -

- 32. To date, Samsung has not reciprocated the Plaintiffs' good faith efforts to negotiate a FRAND license. Samsung has failed to negotiate in good faith. Samsung has instead declined to take a license to the Plaintiffs' valuable intellectual property, including the Patent-In-Suit.
- 33. Samsung has operated and continues to operate the Samsung Accused Products without a license to the Plaintiffs' patents, including the Patent-In-Suit. Given Samsung's unwillingness to license the Plaintiffs' patents, or to cease its infringement, the Plaintiffs have filed this lawsuit for the purpose of protecting their patent rights in the United States.
- 34. The parties' licensing negotiations have been unsuccessful because Samsung has refused to engage in a good faith licensing discussion concerning the Plaintiffs' valuable patents.

GENERAL INFRINGEMENT ALLEGATIONS

- 35. Samsung makes, uses, sells, offers for sale, and/or imports, in this District and/or elsewhere in the United States, the Samsung Accused Products that infringe the Patent-In-Suit. For example, and as will be outlined further below, the Samsung Accused Products infringe the Patent-In-Suit by virtue of their compatibility with and practice of the 4G and 5G Standards.
- 36. Samsung first began adding 4G technology (also sometimes referred to as "LTE" or "4G LTE") to its mobile consumer product lineup well over a decade ago. *See, e.g.*, https://www.wired.com/2010/06/samsung-4g-phone-sprint/ (June 2010: "Samsung has introduced its first 4G handset, called the Samsung Epic, on Sprint's network.") (last visited Sept. 12, 2023). On information and belief, since at least six (6) years before the filing of this Complaint (*see* 35 U.S.C. § 286) through the present, virtually all of Samsung's phones, and many other products such as tablets, laptops, and watches, have been compatible with and practice the 4G Standard.
- 37. Samsung began adding 5G technology to its mobile consumer product lineup by at least 2019. *See*, *e.g.*, https://www.samsung.com/us/mobile/5g/evolution-to-5g/ (last visited Sept. 12, 2023) ("In 2019, Samsung introduced its first line of 5G-Ready devices"). Samsung touted that its initial 5G products were "capable of providing streaming, downloading, and browsing at

- 12 -

3x the speed of 4G." *Id.* Since then, Samsung rapidly scaled its 5G rollout, reporting: "In 2020, Samsung continues to commit to pushing 5G innovation forward. Our family of 5G devices is flourishing, growing from two powerful smartphones to an entire line of HyperFast products." *Id.* Additionally, on information and belief, as of the filing of this Complaint, all of the 5G capable products Samsung has released to date are backwards compatible with 4G technology.

- 38. Samsung has frequently touted the benefits of 4G and 5G technologies in the Samsung Accused Products. For example, as Samsung presently states on its website: "The advancements of 4G LTE provided the speed to support rich gaming platforms, HD mobile TV, and video conferencing." https://www.samsung.com/us/mobile/5g/evolution-to-5g/ (last visited Sept. 12, 2023). At its initial rollout of 5G products, Samsung touted that its "5G-Ready devices" were capable of connectivity "3x the speed of 4G." *Id.* Today, Samsung advertises that "[i]t's all possible with 5G: From smooth-as-silk gaming to streaming, shopping and working all at once, Samsung elevates every day with unique 5G devices." https://www.samsung.com/us/mobile/5g/ (last visited Sept. 12, 2023). Samsung touts that, "[f]rom visiting new shops in the metaverse to meeting friends at virtual concerts, Samsung 5G devices can give you the speed and connectivity to keep up." *Id.* According to Samsung, its "Galaxy 5G devices give you the next-level connectivity to control it all like a symphony. Effortless multitasking. Crisp HD video chatting. Seamless connections to your tablet, buds, and even your fridge and range." *Id.*
- 39. Samsung has directly and indirectly infringed, and continues to directly and indirectly infringe, the Patent-In-Suit by engaging in acts constituting infringement under 35 U.S.C. § 271(a), (b), and/or (c), including but not limited to making, using, selling and offering to sell, in this District and elsewhere in the United States, and importing into the United States, the Samsung Accused Products that infringe the Patent-In-Suit.
- 40. Samsung has directly infringed and continues to directly infringe the Patent-In-Suit, as provided in 35 U.S.C. § 271(a), including at least by Samsung making, using, selling, offering

- 13 -

to sell, and/or importing the Samsung Accused Products. For example, and as will be outlined further below, the Samsung Accused Products infringe the Patent-In-Suit by virtue of their compatibility with and practice of the 4G and 5G Standards.

- 41. Samsung has also indirectly infringed and continues to indirectly infringe the Patent-In-Suit, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Samsung's customers and end-users, in this District and elsewhere in the United States, to use the Samsung Accused Products in manners that infringe the Patent-In-Suit. For example, Samsung's customers and end-users directly infringe via their use of the Samsung Accused Products to access and use 4G and 5G wireless technologies, infringing the Patent-In-Suit. Samsung induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Samsung Accused Products, as well as by advertising its 4G and 5G wireless technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing 4G and 5G wireless technologies, including but not limited to by Samsung providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Samsung performs these affirmative acts with knowledge of the Patent-In-Suit and with the intent, or willful blindness, that the induced acts directly infringe the Patent-In-Suit.
- 42. Samsung has also indirectly infringed and continues to indirectly infringe the Patent-In-Suit, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Samsung's customers and end-users, in this District and elsewhere in the United States. Samsung's affirmative acts of selling and offering to sell the Samsung Accused Products in this District and elsewhere in the United States, and causing the Samsung Accused Products to be manufactured, used, sold, and offered for sale, contribute to Samsung's customers and end-users using the Samsung Accused Products, such that the Patent-In-Suit is directly infringed. The accused components in the Samsung Accused Products are material to the

11254137 - 14 -

inventions claimed in the Patent-In-Suit, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Samsung to be especially made or adapted for use in the infringement of the Patent-In-Suit. Samsung performs these affirmative acts with knowledge of the Patent-In-Suit and with the intent, or willful blindness, that they cause direct infringement of the Patent-In-Suit.

- 43. Samsung's infringement of the Patent-In-Suit has caused damage to the Plaintiffs. The Plaintiffs are entitled to recover from Samsung the damages sustained by the Plaintiffs as a result of Samsung's wrongful acts in an amount subject to proof at trial.
- 44. Samsung's infringement of the Patent-In-Suit has been and continues to be willful. Samsung has had knowledge of the Patent-In-Suit, and its infringement thereof, at least since January 19, 2022, when Plaintiffs provided Samsung notice that it is infringing the Patent-In-Suit. Despite this, Samsung continues without license to make, use, sell, offer to sell, and/or import products and/or services that infringe the Patent-In-Suit, including the Samsung Accused Products, thereby willfully continuing Samsung's infringement.
- 45. In the interest of providing detailed averments of infringement, the Plaintiffs below demonstrate infringement for one exemplary claim of the Patent-In-Suit. However, the exemplary claim and exemplary mapping provided herein should not be considered limiting, and additional claims and mappings will be disclosed per the Court's rules relating to infringement contentions.

COUNT I: INFRINGEMENT OF THE '878 PATENT

- 46. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.
- 47. U.S. Patent No. 10,187,878 ("the '878 Patent" or "Patent-In-Suit") was duly and legally issued on January 22, 2019, for an invention titled, "Method And Apparatus For Improving A Transmission Using A Configured Resource In A Wireless Communication System."
 - 48. Plaintiffs own all rights to the '878 Patent that are necessary to bring this action.

11254137 - 15 -

- 49. Samsung is not currently licensed to practice the '878 Patent.
- 50. Samsung infringes, contributes to the infringement of, and/or induces infringement of the '878 Patent by making, using, selling, offering for sale, and/or importing the Samsung Accused Products in/into the United States.
- 51. For example and as shown below, the Samsung Accused Products infringe at least claim 11 of the '878 Patent by virtue of their compatibility with and practice of the 4G and 5G Standards. For example, and to the extent the preamble is limiting, the Samsung Accused Products practice a method of a UE (User Equipment). For example, this functionality is described in the 5G Standard, including but not limited to in 3GPP TS 38.321 sections 4 and 5.

3GPP TS 38.321

4.2 MAC architecture

4.2.1 General

This clause describes a model of the MAC i.e. it does not specify or restrict implementations.

RRC is in control of the MAC configuration.

4.2.2 MAC Entities

The MAC entity of the UE handles the following transport channels:

- Broadcast Channel (BCH);
- Downlink Shared Channel(s) (DL-SCH);
- Paging Channel (PCH);
- Uplink Shared Channel(s) (UL-SCH);
- Random Access Channel(s) (RACH).

5.4.1 UL Grant reception

Uplink grant is either received dynamically on the PDCCH, in a Random Access Response, or configured semipersistently by RRC. The MAC entity shall have an uplink grant to transmit on the UL-SCH. To perform the requested transmissions, the MAC layer receives HARQ information from lower layers.

52. The Samsung Accused Products further practice the foregoing method under which an uplink grant is available for the UE in a TTI (Transmission Time Interval), wherein the UE does

11254137 - 16 -

not have data available for transmission. For example, this functionality is described in the 5G Standard, including but not limited to in 3GPP TS 38.321 section 5 and 3GPP TS 38.306 section 4.

3GPP TS 38.321

5.4.1 UL Grant reception

Uplink grant is either received dynamically on the PDCCH, in a Random Access Response, or configured semipersistently by RRC. The MAC entity shall have an uplink grant to transmit on the UL-SCH. To perform the requested transmissions, the MAC layer receives HARQ information from lower layers.

3GPP TS 38.306

4.2.6 MAC parameters				
Definitions for parameters	Per	М	FDD- TDD DIFF	FR1- FR2 DIFF
skipUplinkTxDynamic Indicates whether the UE supports skipping of UL transmission for an uplink grant indicated on PDCCH if no data is available for transmission as specified in TS 38.321 [8].	UE	No	Yes	No

53. The Samsung Accused Products further practice the step whereby the UE transmits a physical control information on a data channel according to the uplink grant if the physical control information needs to be transmitted in the TTI. For example, this functionality is described in the 5G Standard, including but not limited to in 3GPP TS 38.214 sections 5 and 6.

3GPP TS 38.214

5.2.1 Channel state information framework

The time and frequency resources that can be used by the UE to report CSI are controlled by the gNB. CSI may consist of Channel Quality Indicator (CQI), precoding matrix indicator (PMI), CSI-RS resource indicator (CRI), SS/PBCH Block Resource indicator (SSBRI), layer indicator (LI), rank indicator (RI) and/or L1-RSRP.

5.2.3 CSI reporting using PUSCH

A UE shall perform aperiodic CSI reporting using PUSCH on serving cell c upon successful decoding of a DCI format 0_1 which triggers an aperiodic CSI trigger state.

11254137 - 17 -

6.1.2.1 Resource allocation in time domain

When the UE is scheduled to transmit a transport block and no CSI report, or the UE is scheduled to transmit a transport block and a CSI report(s) on PUSCH by a DCI, the *Time domain resource assignment* field value m of the DCI provides a row index m+1 to an allocated table. The determination of the used resource allocation table is defined in clause 6.1.2.1.1. The indexed row defines the slot offset K_2 , the start and length indicator SLIV, or directly the start symbol S and the allocation length L, and the PUSCH mapping type to be applied in the PUSCH transmission.

. . . .

- The slot where the UE shall transmit the PUSCH is determined by K_2 as $\left[n \cdot \frac{2^{\mu_{PUSCH}}}{2^{\mu_{PDCCH}}}\right] + K_2$ where n is the slot with the scheduling DCI, K_2 is based on the numerology of PUSCH, and μ_{PUSCH} and μ_{PDCCH} are the subcarrier spacing configurations for PUSCH and PDCCH, respectively, and
- 54. The Samsung Accused Products further practice the step whereby the UE skips the uplink grant if the physical control information does not need to be transmitted in the TTI. For example, this functionality is described in the 5G Standard, including but not limited to in 3GPP TS 38.306 section 4 and 3GPP TS 38.321 section 5.

3GPP TS 38.306

4.2.6 MAC parameters				
Definitions for parameters	Per	М	FDD- TDD DIFF	FR1- FR2 DIFF
skipUplinkTxDynamic Indicates whether the UE supports skipping of UL transmission for an uplink grant indicated on PDCCH if no data is available for transmission as specified in TS 38.321 [8].	UE	No	Yes	No

3GPP TS 38.321

5.4.3.1.3 Allocation of resources

The MAC entity shall not generate a MAC PDU for the HARQ entity if the following conditions are satisfied:

- the MAC entity is configured with *skipUplinkTxDynamic* with value *true* and the grant indicated to the HARQ entity was addressed to a C-RNTI, or the grant indicated to the HARQ entity is a configured uplink grant; and
- there is no aperiodic CSI requested for this PUSCH transmission as specified in TS 38.212 [9]; and
- the MAC PDU includes zero MAC SDUs; and
- the MAC PDU includes only the periodic BSR and there is no data available for any LCG, or the MAC PDU includes only the padding BSR.
- 55. Accordingly, as illustrated above, the Samsung Accused Products directly infringe one or more claims of the '878 Patent. Samsung makes, uses, sells, offers for sale, and/or imports,

11254137 - 18 -

in this District and/or elsewhere in the United States, the Samsung Accused Products and thus directly infringes the '878 Patent.

- Patent, as provided in 35 U.S.C. § 271(b), including at least by inducing infringement by others, such as Samsung's customers and end-users, in this District and elsewhere in the United States, to use the Samsung Accused Products in manners that infringe the '878 Patent. For example, Samsung's customers and end-users directly infringe via their use of the Samsung Accused Products to access and use 4G and 5G wireless technologies, infringing the '878 Patent. Samsung induces such direct infringement through its affirmative acts of making, using, selling, offering to sell, and/or importing the Samsung Accused Products, as well as by advertising its 4G and 5G wireless technologies and providing instructions, documentation, and other information to its customers and end-users to encourage and teach them how to use the infringing 4G and 5G wireless technologies, including but not limited to by Samsung providing in-store and online technical support, marketing materials, product manuals, advertisements, and other product documentation. Samsung performs these affirmative acts with knowledge of the '878 Patent and with the intent, or willful blindness, that the induced acts directly infringe the '878 Patent.
- 57. Samsung has also indirectly infringed and continues to indirectly infringe the '878 Patent, as provided by 35 U.S.C. § 271(c), by contributing to direct infringement committed by others, such as Samsung's customers and end-users, in this District and elsewhere in the United States. Samsung's affirmative acts of selling and offering to sell the Samsung Accused Products in this District and elsewhere in the United States, and causing the Samsung Accused Products to be manufactured, used, sold, and offered for sale, contribute to Samsung's customers and end-users using the Samsung Accused Products, such that the '878 Patent is directly infringed. The accused components in the Samsung Accused Products are material to the inventions claimed in the '878 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing

11254137 - 19 -

uses, and are known by Samsung to be especially made or adapted for use in the infringement of the '878 Patent. Samsung performs these affirmative acts with knowledge of the '878 Patent and with the intent, or willful blindness, that they cause direct infringement of the '878 Patent.

- 58. Samsung's infringement of the '878 Patent has damaged and will continue to damage the Plaintiffs.
- 59. Samsung has had knowledge of the '878 Patent, and its infringement thereof, at least since January 19, 2022, when Plaintiffs provided Samsung notice that it is infringing the '878 Patent. Samsung continues without license to make, use, sell, offer to sell, and/or import the Samsung Accused Products, willfully continuing Samsung's infringement.

COUNT II: DECLARATORY JUDGMENT THAT THE PLAINTIFFS HAVE COMPLIED WITH ETSI OBLIGATIONS AND COMPETITION LAW AND THAT THE DEFENDANTS HAVE NOT

- 60. Plaintiffs incorporate by reference the preceding paragraphs as though fully set forth herein.
- 61. In an abundance of caution and to ensure their compliance with the ETSI IPR Policy, the Plaintiffs informed Samsung that they were prepared to grant Samsung a license, on FRAND terms, to the Plaintiffs' patents that relate to 4G and/or 5G wireless technologies.
- 62. Not later than January 19, 2022, the Plaintiffs sent Samsung correspondence initiating the Plaintiff's good faith efforts to license their patents to Samsung on FRAND terms.
- 63. Following the Plaintiffs' January 19, 2022 notice to Samsung, including for more than 18 months thereafter, the Plaintiffs' representatives routinely corresponded with Samsung representatives. During such correspondence, the Plaintiffs' representatives provided, in good faith, materials concerning the Plaintiffs' patents and technical details evidencing Samsung's use of the Plaintiffs' patents, including the Patent-In-Suit.
- 64. The Plaintiffs have provided Samsung multiple opportunities to license the Plaintiffs' patents on FRAND terms. Despite this, Samsung has not reciprocated Plaintiffs' good

11254137 - 20 -

faith efforts. Samsung has declined to take a FRAND license, while continuing to make, use, sell, offer to sell, and import the Samsung Accused Products without a license to the Plaintiffs' patents.

- 65. The parties' FRAND license negotiations have been unsuccessful because Samsung has not negotiated in good faith. Samsung has failed to reciprocate the Plaintiffs' good faith efforts.
- 66. There is a dispute between the Plaintiffs and Samsung concerning whether the Plaintiffs' history of offers to Samsung for a global license to the Plaintiffs' patents complies with the Plaintiffs' commitment to license their essential patents on FRAND terms and conditions pursuant to ETSI and ETSI's IPR Policy. The Plaintiffs have fully performed all obligations they may have under the FRAND contract, but Samsung disagrees and, as a result, has refused to license Plaintiffs' patents on the FRAND terms the Plaintiffs have offered. Samsung has not reciprocated the Plaintiffs' efforts to negotiate a FRAND license in good faith. There is a case or controversy of sufficient immediacy, reality, and ripeness to warrant the issuance of declaratory judgment.
- 67. Accordingly, the Plaintiffs request a declaratory judgment by this Court finding that Plaintiffs' actions in connection with their negotiations toward a FRAND license with Samsung were conducted by Plaintiffs in good faith, complied with the ETSI IPR Policy, and were consistent with competition law requirements.
- 68. Further, the Plaintiffs request a declaratory judgment by this Court finding that Samsung has not negotiated with Plaintiffs in good faith, has not complied with ETSI's IPR Policy, and has waived any rights it may have under the ETSI IPR Policy.

DAMAGES

69. As a result of Defendants' acts of infringement, Plaintiffs have suffered actual and consequential damages. To the fullest extent permitted by law, Plaintiffs seek recovery of damages at least in the form of reasonable royalties.

DEMAND FOR JURY TRIAL

70. Plaintiffs hereby demand a jury trial for all issues so triable.

11254137 - 21 -

PRAYER FOR RELIEF

WHEREFORE, the Plaintiffs respectfully request that this Court enter judgment in their

favor ordering, finding, declaring, and/or awarding Plaintiffs relief as follows:

A. that Samsung infringes the Patent-In-Suit;

B. an award of damages resulting from Samsung's acts of infringement in accordance

with 35 U.S.C. § 284;

C. that Samsung's infringement of the Patent-In-Suit is willful;

D. enhanced damages pursuant to 35 U.S.C. § 284;

E. a declaration that Plaintiffs, in their history of negotiations with Samsung in regard

to a global license to the Plaintiffs' patents, have negotiated in good faith and have complied with

the ETSI IPR Policy and any applicable laws, and with competition law;

F. a declaration that Defendants have not negotiated in good faith, have not complied

with the ETSI IPR Policy, and have waived any rights they may have under the ETSI IPR Policy;

G. that this is an exceptional case and awarding the Plaintiffs their reasonable

attorneys' fees pursuant to 35 U.S.C. § 285;

H. an accounting for acts of infringement and supplemental damages for infringement

and/or damages not presented at trial, including, without limitation, pre-judgment and post-

judgment interest;

I. all equitable relief the Court deems just and proper; and

J. such other relief which may be requested and to which the Plaintiffs are entitled.

DATED: September 12, 2023

Respectfully submitted,

/s/ Robert Christopher Bunt

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11254137 - 22 -

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- 23 -11254137